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AUTHOR Nelson, Susan C.
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ABSTRACT

Two contentions are examined in this report: that community colleges receive a smaller amount from state and federal assistance programs than they should in view of the less affluent population they serve, and that there is, on the other hand, a prevalence of individual over-awarding at these colleges. The report first discusses the difficulties involved in determining legitimate student need, such as the lack of consensus concerning parental obligation to contribute and the appropriate balance of self-help and grant aid. Three main causes of over-awarding are then examined: the differing standards for determining non-tuition costs of attendance; the treatment of veterans' benefits under the Basic Grant program; and the lack of coordination between state and federal assistance programs. The report then explores the possibility that public student aid programs work to the disadvantage of community college students by analyzing the distribution of campus-based support and Basic Grants among two- and four-year colleges during fiscal years 1972 and 1976. Finally, the assertion is tested that student aid officers at community colleges are inferior to those at other colleges. Summary conclusions are presented and several tables are appended. (JP)

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Community Colleges and Their Share of Student Financial Assistance

Susan C. Nelson

JC 800 422

June 1980

The Washington Office
of the College Board

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Community Colleges and Their Share of Student Financial Assistance

Susan C. Nelson

College Entrance Examination Board, New York, 1980

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Summary

Two seemingly conflicting concerns are frequently voiced about community college participation in student aid programs--underutilization and overawarding. Determining the validity of these concerns requires, first, a definition of terms and a notion of how aid should be distributed and, second, an empirical comparison of the actual distribution of aid with that ideal standard. This report addresses both tasks and seeks explanations for the patterns of utilization.

No single definition exists for either underutilization or overawarding. A pattern of underutilization could be said to exist if student aid consistently met a smaller fraction of "need" for community college students than for similar students enrolled elsewhere, or alternatively if the unmet need remaining after aid were larger for community college students. Overawarding, apart from fraud and abuse, could be said to occur if either the sum of all forms of aid a student received exceeded need or self-help assistance comprised less than some reasonable percentage or dollar amount of need.

This study emphasizes throughout that conceptual issues are the fundamental source of controversy on utilization: What is need? What costs of education should be counted? How much should parents and students be expected to contribute from their past, present, and future resources? How should public financial aid supplement these private contributions toward college? In short, what is the standard against which the actual distribution of student aid can be judged? There is no clear answer to this question, though the choice of a standard crucially affects the verdict.

The lack of necessary data also hinders a satisfactory comparison between the actual distribution of aid and any proposed standard of need. Thus only tentative judgments can be drawn from examining various pieces of information about the utilization of student aid, but several interesting patterns do emerge. In overawarding, many of the apparent problems arise from disputed definitions of need. Two other factors unambiguously contribute to overawarding. They are the treatment of veterans' educational benefits in the determination of the federal Basic Educational Opportunity Grants (BEOGs) and the lack of coordination between some state aid programs and

BEOGs. Currently only half of veterans' educational benefits are included as income in determining Basic Grant awards, compared to 100 percent of social security, pension, or welfare benefits. With state aid, the frequent lack of coordination with BEOGs is more apt to produce award packages with little self-help than packages that exceed need.

Analysis of the underutilization of aid by community colleges suggests that there are grounds for concern, particularly with the campus-based programs. Judging from each of three different approaches for approximating the adequacy of aid, it appears that community colleges fare as well as any other type of institution under the Basic Grant program, but they seem to receive less under the campus-based programs than might be expected. For instance, when community college freshmen of a given income range are compared with their counterparts at comparably priced senior public institutions, no systematic difference appears in the likelihood of receiving Basic Grants, but community college students are less apt to receive campus-based funds.

In most states the discrepancy between what community colleges might have expected to receive in campus-based funds and their actual allocations has increased in recent years. Indeed, the distribution of campus-based money seems to have shifted in three ways since the introduction of Basic Grants:

1. The concentration of campus-based funds in private and senior public institutions has increased relative to enrollments.

2. Among students who are still dependent on their parents, the funds have moved up the income distribution (even controlling for inflation). In 1972, 13 percent of the dependent recipients of campus-based aid at community colleges had family incomes of $12,000 or more (in 1976 dollars); in 1976 the proportion had risen to 21 percent. In four-year public institutions the figures went from 24 to 32 percent, and from 39 to 44 percent in the private sector.

3. Within each type of institution, independent students (who tend to have fewer resources available for their education than dependent students) are receiving a larger fraction of the support than they did before Basic Grants existed. And that increase was largest at community colleges: in 1976, 41 percent of campus-based aid recipients were independent, compared to 25 percent in 1972.

Overall, the first shift--among institutional sectors--apparently enabled

campus-based funds to serve more affluent students than in pre-BEOG years, though the net result of the last two shifts--within institutions--is not clear.

The explanation for community colleges' lower utilization of the campus-based programs and the recent changes that have taken place remains elusive. The panel review process did not seem at fault. Institutional participation might be a contributing factor, particularly in the National Direct Student Loan Program, but again the data needed to test its role are not available. Evidence shows that student aid administrators do tend to be less experienced and to have smaller staffs at community colleges than at other institutions of comparable size, but the differences do not seem large enough to account for the lower utilization rates. Furthermore, community colleges appear to pay their financial aid administrators at least as well as other institutions of a comparable size. The special nature of community college student bodies (older, more part-time, less degree-seeking, and less prepared to cope with aid application processes) might reduce their participation in student aid programs, but it does not explain their better experiences with BEOGs than with campus-based programs.

Rather than viewing the findings of this report as indications of a problem, a very different interpretation would consider them evidence that federal and state student aid policies are being implemented successfully. If "access" is the purpose of Basic Grants and "choice" one of the goals of state and campus-based aid, it is not surprising that community college students participate more in the former than the latter. Although this hypothesis is appealing, it does not explain why community college freshmen appear least likely to receive campus-based aid even controlling for the level of tuition (as well as income), since presumably a policy to encourage choice would be primarily sensitive to tuition.

What emerges as most likely from this study is that the various factors together contribute to community colleges' lower utilization of the campus-based programs. To the extent that explicit policy is the cause, a remedy lies in revising those policies. However, pending a consensus on a definition of need and more reliable methods for measuring it, the evidence available does not present a strong case for such a revision.

Introduction

It is intriguing that the two main concerns most often mentioned about community college participation in student aid programs are, simultaneously, underutilization and overawarding. For any of a number of reasons, some observers assert that community colleges receive a smaller fraction of state and federal assistance programs than they "should" in view of the less affluent population they serve. At the same time, there is concern that individual overawarding may be prevalent at community colleges, with aid packages either being too large or containing too small a portion of self-help in the form of loans or work. A determination of the validity of these concerns requires, first, a notion of how aid should be distributed and, second, an empirical comparison of the actual distribution of aid with that ideal standard. This report addresses both tasks, but it succeeds more in clarifying the problems involved than in resolving questions of community colleges' utilization of student aid.

The issue of utilization is not new, although no single definition exists for either underutilization or overawarding. Most reasonable definitions would hinge on a measure of "need," the difference between the cost of education to a student and what he or she can contribute toward it. A pattern of underutilization could be said to exist if student aid consistently met a smaller fraction of need for community college students than for similar students attending other types of institutions (particularly public colleges and universities); or alternatively if the unmet need remaining after aid were larger for community college students. Overawarding, on the other hand, could be said to occur if either the sum of all forms of aid a student received exceeded this measure of need or self-help assistance comprised less than some percentage or dollar amount of need judged to be a reasonable expectation.

To date the main examination of underutilization at community colleges was made by Lawrence Gladieux.[1] He focused on the three federal campus-based programs--Supplemental Educational Opportunity Grants (SEOG), College Work-

1. Lawrence E. Gladieux, *Distribution of Federal Student Assistance: The Enigma of the Two-Year Colleges*, New York: College Entrance Examination Board, 1975, 23 pp.

Study (CWS), and National Direct Student Loans (NDSL)--and found that in 1974-75 community colleges seemed to receive a smaller share of SEOG and NDSL funds than would have been expected in view of their students' needs. Among the possible explanations, it appeared that many community colleges simply did not apply for funds and others did not request aid to the limit of their eligibility. Nevertheless, "neither the panel review process . . . nor the state allotment procedures explains the relative underfunding of community colleges in the 'campus-based' federal student aid programs" (page 16). Another hypothesis that could not be tested was inadequate student aid administration at community colleges. Gladieux also examined some preliminary data from the BEOG program and again found indications of underutilization.

A more extensive analysis of Basic Grants was performed by William Van Dusen and Arthur Hauptman.[2] This study began as an attempt to explain the lower-than-expected utilization of the BEOG program in 1973-74 and 1974-75, but soon added the task of explaining the unexpectedly high participation of 1975-76. Unavailability of basic and necessary program data severely handicapped the analysis, but the authors were able to examine patterns of utilization by institutional type and state. Their evidence indicated that in the first two years of the program, community colleges received less than their anticipated share of BEOG funds (about 25 percent instead of an expected 36-38 percent based on student needs).

The present analysis attempts to extend the earlier studies in several important respects. First, it emphasizes that any conclusion of underutilization or overawarding of aid is no better than the definition of need and the data on which it is based. Throughout, the discussion highlights conceptual questions that would lead to a standard against which actual patterns of utilization can be judged. Second, this report puts more emphasis at the state level. Given the wide variation in the number and costs of community colleges among states, it seems logical to try to determine whether national patterns are common among most states or only among a few, dominant ones.

2. William Van Dusen and Arthur Hauptman, "Utilization of the Basic Educational Opportunity Grant Program." Paper prepared by the College Entrance Examination Board for the Office of the Assistant Secretary for Planning and Evaluation, Department of Health, Education, and Welfare, July 1976.

Third, the study updates the period examined, generally to 1978 subject to data availability. Fiscal year (FY) 1977 was the first in which all undergraduate classes were eligible for Basic Grants, and by then institutions had had four years of experience with the program. Hence, the data used here should capture most significant short-run adjustments to the introduction of Basic Grants, such as changes in student-aid-packaging strategies or changes in student behavior. The conclusions in this report do not reflect, however, experiences under the formula for allocating campus-based funds that took effect in the 1979-80 academic year.

The analysis begins by discussing how utilization of student aid programs should be assessed and by describing some of the obstacles to the ideal approach. Lack of a conceptual consensus on what student need is and how aid programs should attempt to fill that need inhibits a theoretical conclusion on what community colleges' share of aid should be. The absence of data needed for calculating--or approximating--the total and unmet needs of students precludes even compromise definitions of need. Hence the bulk of this report examines information from a number of sources in order to form some picture of utilization of student aid at community colleges in comparison with other types of institutions.

This process is initiated with an analysis of potential overawarding of Basic Grants and state assistance. Then the two following sections consider whether public student aid programs work to the disadvantage of community colleges and their students, relative to the rest of higher education, by focusing first on the distribution of campus-based support in fiscal years 1972 and 1976 and next on three "second-best" analytical approaches to the question. The first approach compares aid to enrollment, the second compares aid to costs of attendance, and the third examines the probabilities that a student will receive aid at different types of institutions, controlling for family income and tuition levels. The final analytical section explores the assertion that community college students are being shortchanged on student aid because student aid offices do not match the services at other types of institutions.

Four general conclusions may be drawn from this study.

1. The absence of a consensus on a standard against which actual aid distributions can be compared contributes substantially to the controversy

on the utilization of student aid and critically affects any conclusions.

2. As in the earlier studies, the lack of reliable--and in some cases any--data frequently makes empirical questions unanswerable.

3. Nevertheless, it does appear that community college students participate less in campus-based and state assistance programs but fare better under the larger, more important Basic Grant program.

4. No single factor seems adequate to explain the previous finding, but institutional participation, campus-level student aid administration, and the nontraditional nature of community college students, as well as the explicit policy goals of access and choice, are likely contributors.

Determining Need

Any assertion that community colleges may be receiving less than their "share" of public financial aid funds implies a notion of what that share should be. Similarly, charges of overawarding presume some idea of the appropriate award. For conceptual and technical reasons, both notions are difficult if not impossible to define. This section will discuss a few of the problems involved in finding an acceptable standard against which actual aid payments can be measured.

Some measure of student need would generally be accepted as the theoretical basis for determining the "appropriate" distribution or amount of aid. Most disagreements would come over the choices that must be made in defining need. For instance, should need reflect each dollar of tuition without limit, or should the relevant measure of need depend primarily on income? How much should parents be expected to contribute from their resources? What if they do not meet that expectation? What circumstances end a parent's obligation to contribute? On the cost side, what living expenses should be included? The established need analysis systems necessarily have answers to these issues, but those answers and their legitimacy are increasingly being questioned. Education analysts have explicitly challenged many aspects of the system,[3] and parents pushing for middle-income assistance have implicitly declared the family contribution schedules unrealistic. In the context of this paper, the concern with these questions is critical, since the choices could prejudice the answer to the larger question of whether community college students receive too much or too little student aid. The discussion on overawarding in the next section highlights the problem.

A second conceptual obstacle is the appropriate mix of self-help and grant aid. Many complaints that community college students receive too much aid really refer to too much grant assistance with not enough work or loan obligation. The problem in determining, conceptually, whether

3. See, for example, David W. Breneman, "The Outlook for Student Finance," *Change*, Vol. 10, No. 9, October 1978, p. 48, and Arthur S. Marmaduke, "Implementing the Student Financial Aid Partnership," paper prepared for the Conference on Student Aid Policy of the Aspen Institute for Humanistic Studies, July 1978.

overawarding of grants exists hinges on defining an appropriate self-help requirement. Less consensus exists on the answer to this question than on a definition of need. With substantial diversity among public policies toward self-help components of aid packages, it is quite unclear what--if any--self-help requirements to incorporate into a standard against which to compare actual student aid.

Apart from the conceptual problems of defining need and settling upon an acceptable self-help expectation, substantial technical obstacles also plague the estimation of the appropriate share of aid for students attending different types of institutions. Ideally, the question of underutilization could be approached either on an individual basis, using data on the need of individual students within each institutional sector and on the aid they receive, or on an aggregate basis, where total need for each sector would be compared with total assistance. The prevalence of overawarding could be determined only with information for individual students.

Unfortunately, the individual approach cannot be used since no body of data suitably combines information on the financial resources of each student (and family) with costs of attendance and the various components of a student aid package.[4] This situation should change when the student-resource survey currently in progress by the Division of Postsecondary Programs in the Office of Planning, United States Office of Education, becomes available, probably in 1980. At present, though, the extent of overawarding of student aid cannot be reliably estimated, either in terms of the frequency with which total assistance exceeds need or in terms of the balance between grant and self-help awards.

The prospects for examining underutilization of student aid with aggregate data are brighter but still far from the ideal. To compare need with available aid at different types of institutions, the most important information needed is on income by institutional sector either (a) nation-

4. Minnesota collected data for a large sample of its students, but their usefulness is limited because relatively few demographic variables were included. New York has some information for its Tuition Assistance Program recipients, but it does not include all sources of aid. The National Longitudinal Survey of the High School Class of 1972 would have been quite useful if it had been conducted several years later when the Basic Grant program was fully operating.

ally by college cost or (b) by state without specific cost data (since costs in a given sector vary less within than among states).[5] This information is potentially available from several sources--such as the Cooperative Institutional Research Program (CIRP) surveys of first-time, full-time freshmen; the Census Bureau's Current Population Reports; or its 1975 Survey of Income and Education (SIE)--but they all have drawbacks for the purpose at hand, as explained in Appendix A. A problem common to all three sets of data is reliability--even the two sets of Census Bureau data are inconsistent with each other--pointing up the extreme importance of the methodology used in collecting income information, lest any conclusions on the amount of student need be severely biased simply by the choice of the data set. Once the new federal application process for the campus-based student aid programs has been in place for a few years and institutions have learned to generate reliably the data it requires, useful new information will be available on student incomes and costs of attendance at individual schools, at least for those students who apply for aid. Perhaps if a tuition tax credit were enacted, reliable and consistent information would emerge on the incomes of all students combined with characteristics such as family size, place of residence, tuition costs, and attendance status. Until an improved income series is generated, however, it seems advisable to approach the question of student need and the utilization of financial aid from several perspectives to see if a consistent picture emerges.

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5. To duplicate the calculations of the need analysis systems, information on other factors is required, such as assets, family size, age of the household head, and full-time or part-time attendance status. Income, however, is by far the most important determinant of need.

Overawarding

Next to middle-income assistance, overawarding is probably the student aid issue receiving the most widespread attention. Most of the popular discussion focuses on fraud and abuse in the programs. This section, however, will only deal with "legal" overawarding: instances where the combination of aid under several programs exceeds need[6] and where student aid packages contain too much grant assistance and too little self-help. Despite the absence of micro data on actual student aid packages, a few implications relating to both concepts of overawarding can be drawn by simply examining the programs themselves. The Basic Grant program is a common denominator in either type of overawarding, but the causes can be isolated more precisely. The problems are not confined to community colleges but are most prevalent there since the low costs of attendance make it easier for aid to exceed need or for grant programs to displace self-help.

Three main sources of overawarding can be identified: (1) the differing standards for determining costs of attendance, (2) the treatment of veterans' benefits (under the Basic Grant program), and (3) the lack of coordination between state and federal assistance programs. Each of these factors alone could cause overawarding, but in combination the excesses can be even more severe. The role of the campus-based programs in overawarding, however, cannot be analyzed without information on specific student aid packages. This aspect is further complicated by an explicit prohibition against awards that in combination with a student's other resources "from Federal and non-Federal sources" would exceed need.[7]

Costs of Attendance

The validity of assertions that the allowance for nontuition costs under the BEOG program is too generous and hence contributes to overawarding depends largely on the principles assumed to underlie student aid: Should the government be responsible for only the additional costs attributable

6. See the testimony of Gregory Ahart, director of the Division of Human Resources, Government Accounting Office, before the Subcommittee on Oversight of the House Committee on Ways and Means, 96th Cong., 1st sess., February 8, 1979.
7. See 45 C.F.R. 176.14 (1978).

to attending college or for the total expenses that a student will face? Under the former, the marginal cost approach, Basic Grants would be seen as exceeding the need of some students, while from a total expense perspective, overawarding would be unlikely. An example can best illustrate this situation.

The need analysis system of the College Scholarship Service (CSS) takes the total expense approach. Based on student budgets reported by institutions, nontuition expenses for a community college student in 1977-78 averaged $2,018 for the commuter student living with his parents and $2,681 to live elsewhere off campus.[8] From a marginal cost perspective, many items in these budgets would be excluded, perhaps leaving $918 as the marginal costs of attending college incurred by the commuter student and $1,581 for the student living elsewhere off campus.[9]

The Basic Grant program actually takes a middle ground between these two extremes. Students living off campus (whether with their parents or not) are allowed $1,100 for room and board, plus the $400 allowed all students for books, supplies, and miscellaneous expenses, for a total of $1,500 in nontuition costs. This BEOG cost allowance is substantially less than the CSS total expense budgets. Compared to the marginal cost estimates, though, the Basic Grant allowance would be excessive for students living with their parents but appropriate for those in other forms of off-campus housing. Hence, if need is based on total nontuition expenses, as it is in the CSS calculations, there is no problem of Basic Grants exceeding need. Viewing need in terms of the marginal costs of attending college, though, it is quite possible that commuter students attending low-tuition institutions may be receiving BEOGs that do exceed their needs. The potential for overawarding is most severe among those with moderate family contribu-

8. Elizabeth W. Suchar, Stephen H. Ivens, Edmund C. Jacobson, *Student Expenses at Postsecondary Institutions, 1977-78*, New York: College Entrance Examination Board, 1977, p. vi.

9. Room and board would be reduced by the costs of the food the student would have consumed anyway (at least $600); transportation and personal costs, by those he would have incurred even in his senior year of high school (perhaps $200 and $300, respectively). Books and supplies would remain as costs of college attendance. These adjustments to CSS costs are only meant to be illustrative of true marginal costs.

Table 1. Unmet Need in the 1977-78 Basic Grant Program According to Three Definitions of Cost

Expected family contribution	Basic Grant	Unmet need: Students living with parents			Unmet need: Students living elsewhere off campus		
		CSS	BEOG	Marginal cost	CSS	BEOG	Marginal cost
No tuition:							
$ 0	$750	$1,268	$750	$ 168	$1,931	$750	$831
500	750	768	250	-332	1,431	250	331
750	750	518	0	-582	1,181	0	81
1,000	500	518	0	-582	1,181	0	81
1,500	0	518	0	-582	1,181	0	81
2,000	0	18	-500	-1,082	681	-500	-419
$400 tuition							
0	950	1,468	950	368	2,131	950	1,031
500	950	968	450	-132	1,631	450	531
750	950	718	200	-382	1,381	200	281
1,000	900	518	0	-582	1,181	0	81
1,500	400	518	0	-582	1,181	0	81
2,000	0	418	-100	-682	1,081	-100	-19

Notes: Unmet need = (tuition + nontuition costs) - (BEOG + expected family contribution). As explained in the text, nontuition costs for students living with their parents equal $2,018 according to CSS, $1,500 according to the BEOG program, and $918 according to the marginal cost approach; for students living elsewhere off campus, the comparable figures are $2,681 for CSS, $1,500 for BEOG, and $1,581 for the marginal cost method.

tions, not among the poorest students, as Table 1 shows.[10] Ending any such overawarding would require a reduction in the allowance for students living with their parents. This revision might cause enough administrative complications that some overawarding would be preferable.

Veterans' Educational Benefits

The impact of veterans' educational benefits on overawarding in the BEOG program again depends on a conceptual question: for the purposes of award determination, should GI Bill benefits be treated as general income, more leniently or more severely? Veterans' educational benefits currently receive preferential treatment. Only one half of the amount is included with other

10. This results from the "half-cost" provision in the formula for determining Basic Grants which limits awards to the lesser of $1,800, the cost of attendance minus expected family contribution, or half the cost of attendance.

sources of income in determining expected family contribution; the other half is completely ignored.

Horizontal equity would seem to require that veterans' benefits fall into the same category as general income. Two people in similar family circumstances have the same ability to pay for educational expenses if they have the same financial resources available, regardless of the source of those resources. Even social security student benefits, welfare payments, and untaxed pension benefits are fully counted in determining family contributions for both dependent and independent students. From one perspective, though, veterans' benefits could be viewed as more education related than other dollars of income since their receipt is contingent upon enrollment, implying that a larger fraction of GI benefits should be available for educational expenses than would be true of general income. At the other extreme, it could be argued that GI benefits should be completely excluded from the calculation of Basic Grants because they are a unique form of compensation to veterans whose education was interrupted or postponed by military service. This argument might be even more applicable to the new programs veterns' educational benefits in which the government's contribution will be only part of what the veteran will receive, the rest representing voluntarily deferred compensation.

The approach that is adopted determines which Basic Grants would be considered overawards.[11] If it were felt that GI Bill benefits should be excluded completely in determining BEOGs, then the current method would underaward, not overaward. On the other hand, if the present system is judged according to the principle of horizontal equity (under which 100 percent of veterans' benefits would be included with their other sources of income in determining BEOG levels), many Basic Grants to veterans would be considered overawards. As the examples for 1977-78 in Appendix Table B1 indicate, some single independent students with virtually no other sources of income could have received over $1,000 "too much" in Basic Grants: that is, $1,000 more than they would have received if their veterans' educational benefits were treated like social security student benefits or any

11. In any case, the number would not be very large: only 137,000 students eligible for BEOGs (approximately 10 percent of the total) reported receiving veterans' benefits in 1976-77.

other form of income. A similar problem appears for married veterans and to a lesser extent for veterans who are still dependent on their parents.[12]

State Assistance Programs

The contribution of state programs to overawarding stems primarily from a disregard for federal aid. Programs offered throughout the country are so diverse that instances can be found of model coordination with federal programs, as well as others that completely ignore the existence of the federal funds. The greatest potential for overawarding comes from too little self-help in aid packages, rather than total aid exceeding a state's definition of need.

Several factors limit the frequency with which state aid plus Basic Grants would exceed calculated need. First, more than half the states explicitly include Basic Grants in determining state grants.[13] In these states, total aid might exceed need as defined by the Basic Grant program but not as defined by the state. Hence, this should not generally be considered overawarding. Some states reduce the possibility of excessive aid packages either by limiting awards to the amount of tuition and fees (up to some ceiling) or by having low maximum grants. In states such as New York where awards are constrained to tuition and fees (up to $1,500 in 1977-78), the half-cost limitation in the Basic Grant program would prevent the combination of state aid plus BEOG from exceeding need (even under the BEOG definition) except where tuition exceeded room and board plus miscellaneous costs. Clearly, this would seldom, if ever, occur at community colleges. Finally, in a few of the remaining states, the state

12. Although the Middle Income Student Assistance Act of 1978 substantially changed some of the parameters of the formulas for calculating BEOGs--most important, the family size offset for single independent students and the contribution rate from discretionary income for dependent students--it did not touch the special treatment afforded veterans' benefits.

13. The discussion here is based on information from the following: Joseph D. Boyd, *National Association of State Scholarship and Grant Programs: 9th Annual Survey, 1977-78 Academic Year*, Deerfield, Ill.: NASSGP, no date; Education Commission of the States (ECS) and National Center for Higher Education Management Systems (NCHEMS), *State Descriptive Profiles of State Student Assistance Programs*, supported by the U.S. Office of Education, Office of Planning, no date; and from a survey of NASSGP members conducted by the Washington Office of the College Board in 1978.

award is determined at the institutional level by the aid administrator who should have information on all forms of assistance available and be in the best position to prevent overawarding. Although excessive aid packages due to a lack of coordination between state assistance and Basic Grants are probably confined to only a few states, there is no justification for them to continue. States would be able to serve more students if they recognized BEOGs as an important student resource.

Aid packages with "too little" self-help are a more prevalent overawarding problem among state grant programs. Again, there is no consensus on an appropriate self-help requirement. The need analysis systems generally assume some savings from summer earnings (such as $500-700) in calculating the expected family contribution, but they are silent on self-help during the school year. Federal programs provide no guidance, leaving the packaging of various types of assistance to the states or the institutions. Although states vary considerably in concern for self-help, many models of self-help requirements exist that could be adopted elsewhere. Some states--including New Jersey, Maine, and Maryland--limit their awards to a certain fraction of need remaining after a Basic Grant, while others (like Minnesota, North Carolina, and Oregon) limit the sum of BEOG and state grant to 50 or 75 percent of total need. Either approach forces students to turn to work or loans (or possibly to SEOGs from institutions) for the rest of their financing. The frequency with which grant aid equals need cannot be determined without information on aid packages of individual students, but the incidence is probably highest among community college students in those states with substantial maximum awards (say $1,000 or more) that are not limited to tuition and fees.

From this discussion it should be clear that revising the details of the programs, not simply reducing appropriations or excluding community college students from eligibility, is the key to the problem of overawarding at both state and federal levels. Certainly state programs need to be coordinated with Basic Grant awards. However, resolving the more difficult issues of whether to reduce the BEOG room and board allowance for students living with their parents, whether to count 100 percent of veterans' benefits as income available for education (as horizontal equity with other students would require), and whether to institute a

self-help component in aid packages requires that some fundamental questions be addressed. What costs does the government want to cover? What financial resources--in the way of assets, current income, or claims on future earnings--should a student (or family) be expected to make available for education? Without a consensus on these points, charges of overawarding will persist from those who disagree with the way current programs answer these questions. Some overawarding is unavoidable as an administrative inevitability and as the product of political compromise. The reward for tackling these difficult issues, though, would be a rare chance to save taxpayers' money while maintaining the federal and state commitments of access to higher education, to improve equity while expanding the income range of students served.

Distribution of Campus-Based Aid

As a first step toward evaluating how well current programs serve the needs of community college students relative to students enrolled elsewhere, this section compares the distribution of campus-based funds at community colleges and other institutions in 1972 and 1976. It questions whether a given type of recipient would fare better or worse at a community college than elsewhere and then explores the possibility that Basic Grants have allowed campus-based funds to move up the income scale and serve more affluent students.

Evidence for 1972 and 1976 does not indicate any disadvantage for recipients of campus-based funds attending community colleges, compared to their counterparts enrolled elsewhere (see Tables 2 and 3 and Appendix

Table 2. Distribution of Undergraduate Recipients of Any Campus-Based Aid, FY1976 and FY1972

	Status				
		Dependent students by family income (in constant 1975-76 dollars)			
	Independent students (% of total recipients)	Total dependent	Less than $6,000	$6,000-11,999	$12,000 or more
FY1976:					
2-year public*	41.3%	100%	43.5%	35.9%	20.6%
4-year public*	25.9	100	31.1	36.7	32.3
Private	12.7	100	22.1	33.7	44.2
FY1972:					
2-year public*	24.9	100	46.0	41.0	13.0
4-year public*	19.3	100	35.3	40.4	24.3
Private	9.1	100	26.1	35.2	38.7

Note: Unduplicated count of recipients.
*Excludes the City University of New York (CUNY).

Source: Data tapes produced by the Washington Office of the College Board from the Fiscal Operations Reports that institutions filed with the U.S. Office of Education for fiscal years 1972 and 1976.

Tables B2-B5). This conclusion appears true both nationally and for the five states with the largest community college enrollments. The differences between the distribution of campus-based funds at community colleges and other institutions reflect the former's less affluent clientele and lower tuitions. At community colleges, recipients are drawn more heavily from the low end of the income scale (for dependent students) and from independent students. Similarly, it is not surprising that awards for community college students average about $200-250 less than for their counterparts with similar incomes at senior public institutions, since this approximates the tuition differential. Consequently, the higher awards at four-year colleges do not necessarily indicate that recipients at community colleges fare worse than their counterparts elsewhere.

Comparing the distribution for campus-based funds in 1972 and 1976 also suggests that the introduction of Basic Grants had several substantial

Table 3. Average Awards to Undergraduates from All Campus-Based Programs, FY1976 and FY1972 (in constant 1975-76 dollars)

	Status					
		Dependent students by family income				
	Independent students	Total dependent	Less than $6,000	$6,000-8,999	$9,000-11,999	$12,000 or more
FY1976:						
2-year public*	$ 780	$ 652	$ 634	$ 649	$ 660	$686
4-year public*	1,126	842	827	862	888	818
Private	1,088	1,007	1,048	1,057	1,052	950
FY1972:						
2-year public*	866	806	843	824	785	674
4-year public*	1,161	1,052	1,166	1,121	1,049	836
Private	1,294	1,274	1,626	1,472	1,275	957

Note: Unduplicated count of recipients.
*Excludes CUNY.

Source: Same as Table 2.

effects on the campus-based programs. First, the average constant dollar award to students in a given (real) income range actually fell from 1972 to 1976 at all types of institutions, presumably because BEOGs reduced the need for campus-based assistance in some aid packages. In addition, two factors suggest that the introduction of Basic Grants did move campus-based monies up the income scale, although another piece of evidence suggests that appearance may be deceptive. On one hand, the fraction of dependent recipients in the highest income class rose over the four years for all types of institutions and in virtually all states. Furthermore, in 1972 average awards generally fell as income rose, but in 1976 the reverse was true: higher income dependent students received larger awards. These two trends are consistent with the hypothesis that Basic Grants enabled campus-based funds to move up the income ladder (in real terms) for dependent students during the early years of the BEOG program.

This conclusion does not necessarily apply to campus-based programs as a whole because the fraction of recipients who were independent of their parents increased substantially during this period. If independent students generally have fewer financial resources to use for college expenses than do dependent students as some evidence suggests,[14] then the programs might actually have served a more needy group of students in 1975-76 than in 1971-72. This would be most likely at community colleges where the increase in independent recipients was greatest. At a minimum, the information on the independent recipients available from the Fiscal Operations Reports is inadequate for concluding that the campus-based programs as a whole moved up the income scale in recent years, though they did among dependent students.

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14. No income or need information is directly available on independent recipients of campus-based awards. However, eligible independent applicants for Basic Grants indicated less ability to contribute to educational costs than did qualifying dependent applicants. U.S. Office of Education, Bureau of Student Financial Assistance, "End-of-Year Report for the Basic Educational Grant Program for the 1976-77 Processing Year," February 1978, Table IIC.

Certainly some independent students could be considered voluntarily poor, those who could draw on family resources if they really needed them. Yet as long as parental income is ignored in determining independent students' awards, it seems inconsistent in discussions such as this to reintroduce family income and judge those students as less needy, particularly in the absence of a clearly articulated alternative standard for measuring need.

Second-Best Analytical Approaches

Examining only the recipients of aid, as the previous section did for campus-based programs, provides no information on the adequacy of aid in meeting the needs of all students, aided and unaided. While a clear comparison between aid and need is currently impossible, as demonstrated earlier, this section uses several "second-best" approaches to address two questions: Are community college students receiving "their fair share" of federal and state need-based aid? Have the changes in recent years at the federal level worked to the advantage or disadvantage of community colleges relative to their private or four-year public counterparts?

The analysis starts with the facts in Table 4 that in 1977-78 community college students received $489 million in need-based financial assistance from the federal government, compared to $1,006 million for public four-year institutions and $704 million for the private sector. Largely because of the expansion of Basic Grants, these three figures represent substantial increases over the comparable amounts for fiscal 1974, with community colleges registering the largest percentage increase. To relate these statistics to student need in an approximate way, the figures are first adjusted for enrollment differences at the three types of institutions, then for costs of attendance, and finally for differences in family income as well as tuition levels.

Enrollment-Based Shares

Enrollment is the most fundamental benchmark against which to compare the distribution of student aid. This part first focuses on the distribution of federal aid among institutional sectors relative to the distribution of students, and then performs a similar but more limited analysis of state assistance programs.

When the community colleges' share of total enrollment is compared with the shares of funds that their students receive under each of the federal programs, it appears that community colleges are treated more favorably by Basic Grants than by any of the campus-based programs. Indeed, in 1977-78, all types of institutions received just about their "enrollment-based shares" of BEOGs, indicating that Basic Grants were distributed

Table 4. Total Federal Funds for Basic Grants and Campus-Based Student Aid Programs, FYs 1974-1978
(in millions)

	1974	1975	1976	1977	1978
Total federal funds:					
2-year public*	$117.1	$194.2	$350.9	$478.6	$ 489.4
4-year public*	348.9	454.3	682.3	970.4	1,005.8
Private	266.9	325.1	476.0	621.3	703.5
Basic Grants:					
2-year public*	12.0	94.8	239.3	350.8	380.8
4-year public*	16.5	124.4	311.5	554.9	593.6
Private	11.3	75.5	196.7	309.1	369.5
Campus-based funds:					
2-year public*	105.1	99.4	111.6	127.8	108.6
4-year public*	332.4	329.9	370.8	415.5	412.2
Private	255.6	249.6	279.3	312.1	334.0

*Excludes CUNY because aid to CUNY institutions cannot readily be separated between 2-year and 4-year colleges. For FY1978 CUNY Basic Grant amounts were estimated.

Sources: For Basic Grants, U.S. Office of Education, *Basic Grant Program Institutional Agreement and Authorization Report*, issues for relevant years; for campus-based funds, Office of Education, Division of Student Assistance, application and allocation tabulations for SEOG, CWS, and NDSL for relevant years.

among institutions approximately as was enrollment.[15] (See Table 5; for state breakdowns, see Appendix Table B6.) With all the campus-based

15. The term, enrollment-based share, can be explained with the following example: for community colleges, their enrollment-based share of BEOGs in 1977-78 (1.02) equals the fraction of all BEOG funds going to students at community colleges (.283) divided by the fraction of all students who attend community colleges (.279). A figure greater than 1 would indicate that community colleges had received more BEOG support than if the funds were distributed on a per-student basis (more than their enrollment-based share), while a figure below 1 would indicate that they had received a smaller fraction of BEOG dollars than their fraction of total enrollment in the state (less than their enrollment-based share). The actual value of 1.02 means that community college students received Basic Grants almost exactly in proportion to their share of full-time equivalent (FTE) enrollment.

Table 5. Enrollment-Based Shares of Student Aid Funds, 1973-74 to 1977-78

	BEOGs*	SEOGs	CWS	NDSL	State aid
2-year public:†					
1977-78	1.02	0.52	0.63	0.18	‡
1976-77	1.03	0.56	0.71	0.30	‡
1975-76	‡	0.54	0.68	0.30	0.31
1974-75	‡	0.59	0.75	0.32	‡
1973-74	0.83	0.69	0.79	0.35	‡
4-year public:†					
1977-78	0.93	0.91	1.00	1.05	‡
1976-77	0.96	0.96	1.00	1.02	‡
1975-76	‡	0.99	1.01	1.06	0.74
1974-75	‡	0.99	0.97	1.03	‡
1973-74	1.07	0.95	0.95	1.00	‡
Private:					
1977-78	1.13	1.72	1.41	1.84	‡
1976-77	1.06	1.60	1.35	1.77	‡
1975-76	‡	1.57	1.36	1.73	2.37
1974-75	‡	1.48	1.34	1.69	‡
1973-74	1.15	1.41	1.31	1.67	‡

Note: See footnote 15 for an explanation of enrollment-based shares.

*Enrollment used was first-time, full-time for 1973-74 and total FTE for 1976-77 and 1977-78.

†Excludes CUNY.

‡Not reliably available.

Sources: National Center for Education Statistics (NCES), *Opening Fall Enrollment in Higher Education* (relevant years); U.S. Office of Education, *Basic Grant Program Institutional Agreement and Authorization Report* for 1973-74 and 1976-77, plus unpublished tables for 1977-78; Office of Education, Division of Student Assistance, application and allocation tabulations for SEOG, CWS, and NDSL for fiscal year 1978 and preceding years. Distribution of state aid calculated from ECS and NCHEMS, *State Descriptive Profiles*.

programs, the community college sector received substantially less than its enrollment-based share, while the private sector fared particularly

well. These patterns prevailed not only on an aggregate national level but generally within the five states with the largest community college enrollments (California, New York,[16] Illinois, Texas, and Florida) and for the rest of the nation.

Enrollment-based shares of aid provide an even more useful perspective on how changes in aid programs over time have worked to the advantage or disadvantage of the various sectors. If need at community colleges has at least kept pace with need at private and public four-year institutions as seems reasonable from the available information,[17] then for increases in student aid to have been neutral relative to community colleges, their enrollment-based shares of aid should not have fallen. On this basis, the growth in Basic Grants perhaps has worked to the advantage of community college students, while the opposite has occurred with the campus-based programs. In the first year of the BEOG program, when only full-time freshmen were eligible, community colleges generally received less than their share of Basic Grants (compared to the relevant enrollment measure), but by 1976-77, when all four undergraduate classes as well as half-time students were eligible, these institutions were receiving at least their share (compared to total enrollment). Over the same period, two-year public colleges generally registered declines in the enrollment-based share of campus-based funds (precipitously in the case of NDSL). Again, the declines were common to states with both large and small community college sectors.

Although the evidence is not strong, these declines in the shares of campus-based funds going to community colleges (relative to enrollment) suggest that to some extent Basic Grants replaced rather than simply supplemented existing federal aid at community colleges. A pattern emerges

16. All national and New York figures exclude the City University of New York because of inconsistencies in the reporting of CUNY data.
17. In recent years, cost of attendance rose faster at two-year than at four-year public colleges and at about the same rate as in the private sector. National Center for Education Statistics, *The Condition of Education*, 1978 ed., Washington, D.C.: Department of Health, Education, and Welfare, 1978. The income of community college students does not appear to have outpaced that of other students. U.S. Census Bureau, Current Population Reports, *Population Characteristics*, Series P-20, Numbers 272, 286, 319.

of campus-based funds being shifted from community colleges into both upper-level public institutions and the private sector. Although the discussion in the previous section questioned whether campus-based funds had moved up the income scale within sectors because of the growth in independent recipients, the evidence here suggests that Basic Grants may still have enabled the campus-based programs to serve a more affluent clientele by contributing to their shift among sectors.

This analysis of the enrollment-based shares of federal student aid programs has three main implications: (1) There is no evidence that community college students are at a disadvantage in receiving Basic Grants compared to their counterparts at other institutions. (2) Campus-based funds have been distributed unfavorably to community colleges. (3) The distribution of campus-based aid worsened for community colleges between 1973-74 and 1976-77, although the distribution of BEOG monies improved. This suggests that Basic Grants may have replaced rather than just supplemented campus-based aid.

Producing these findings is easier than explaining them. The panel review process is often cited as one source of community colleges' disadvantage in the campus-based programs. Gladieux[18] explored but rejected this factor in his study. As Appendix Table B7 shows, the panel review process can again be rejected as a prime contributor to community colleges' problems, except possibly in the NDSL program. In both 1973-74 and 1977-78, final allocations of SEOG and CWS funds in general comprised a slightly smaller fraction of institutional requests for community colleges than for other types of institutions. The differences, however, are too slight to account for the decidedly smaller shares of campus-based funds (relative to enrollment) that community colleges received in both years. The process also does not seem to have worsened much for community colleges over this period so it cannot be blamed for the decreases they experienced in their share of SEOG and CWS funds. For community colleges, the precipitous drop in the ratio of allocations to requests in the NDSL program, however, may have contributed to the small amount of funds received relative to enrollment. It is too soon to tell how the recently revised allocation procedures, which essentially

18. Gladieux, *Distribution of Student Assistance*, pp. 13-16.

eliminate the panel review step of the process, will redistribute campus-based funds among institutional sectors.

A second possible explanation for the relatively small amount of campus-based funds going to community colleges rests with institutional participation. On the basis of information in Appendix Table B8, this factor could have contributed to the deterioration in community colleges' position in the three campus-based programs, particularly with NDSL. In general, the number of private and senior public institutions participating in the programs rose more or fell less (in percentage terms) than did the number of community colleges. Unfortunately, it is impossible to tell whether the persistently low fraction of funds (relative to enrollment) going to community colleges can be attributed to low participation rates among eligible institutions because the necessary information on the eligible universe is not available. Even if community colleges do have lower participation rates (as undoubtedly is true in the NDSL program), the question still remains: Why don't they participate at the same rate as do other types of institutions? One possible answer, namely that the financial aid administrators are less able to serve their students at community colleges than at other types of institutions, is explored later in this report.

These observations on enrollment-based shares of student aid cannot be directly translated into conclusions on the adequacy of that aid. One point is clear: if community colleges were underutilizing campus-based aid in 1973-74, the problem has become even more severe since then. The cause of the deterioration does not rest with the panel review process, but possibly with institutional participation. The relative shift of campus-based programs among sectors also suggests that overall, if not within sectors, the programs came to serve more affluent students.

Compared to state assistance, the campus-based programs seem to shower community colleges with support. The figures in Table 5 and Appendix Table B6e indicate that state student aid generally focuses on the private sector, followed by the public four-year institutions, with the community

college students trailing at a respectful distance.[19] New York is a notable exception to the rule, with state funds (namely the Tuition Assistance Program) being distributed among sectors approximately as is enrollment. Not only do New York community colleges receive an unusually large fraction of state support, but the private institutions receive a surprisingly small share, compared to other states. New York has clearly chosen the route of nominally high public-sector tuitions offset by substantial student aid for those who need it.

Apart from New York, the small fraction of state assistance going to public two-year institutions is not surprising since it seems to reflect conscious state policy. Many state grant programs were designed to assist students in the high-tuition private sector, with community college students already receiving substantial amounts of state assistance through the maintenance of low tuition. (But then so do students at senior public institutions.)

In a few states in recent years an attitude of "we've helped them enough" apparently prevailed and led to community college students being ineligible for state student aid. But the small share of state assistance funds flowing to community college students is more likely attributable to three other conditions that apply equally to two- and four-year colleges but that impinge more severely on the former. First, in only eight states[20] plus the District of Columbia is the general assistance program open to half-time students, and only in Colorado to students enrolled less than half-time. Second, in a number of states (perhaps 17), the application deadline falls before a high school senior has even graduated. This condition also has more effect on community college students since they may not decide to be students until

19. The estimates of state student aid by institutional sector are not very reliable, but they are the only evidence available. The distributions of aid come from ECS and NCHEMS, *State Descriptive Profiles*, but for a number of states the distributions refer only to the federal portion of State Student Incentive Grant (SSIG) funds. Because of the incentives for states to report SSIG funds as serving low-income students, who disproportionately attend community colleges, these data probably overestimate the fraction of state aid funds awarded to community college students.

20. The eight states are California, Colorado, Idaho, Illinois, Nebraska, Tennessee, Vermont, and Wisconsin. ECS and NCHEMS, *State Descriptive Profiles*.

September. Finally and most important, in about 20 states awards are limited to the amount of tuition and fees up to some maximum. This limitation tends to restrict grants to community college students and benefit private college students. It has the positive effects, though, of cushioning increases in public-sector tuitions and reducing the incidence of overawarding (as was discussed earlier).

These three conditions may reflect conscious education policies with no intent to discriminate for or against a particular type of institution, but they effectively limit assistance to many of those students whom community colleges are designed to entice into higher education.

Student Aid Relative to Costs of Attendance

A second test of the adequacy of student aid is the fraction of tuition costs (and total costs of attendance) that need-based assistance offsets in various states and institutional categories. Since most federal aid is based on total need including living costs, it is likely that such aid would represent a larger fraction of tuition and fees at community colleges where the charges are lowest. When federal aid is compared to tuition costs, this expectation is borne out, primarily because of Basic Grants (see Appendix Table B9). Since states generally intend institutional tuition subsidies to provide access to community colleges, state student aid would be expected to cover a smaller fraction of tuition charges at lower-than at upper-level public institutions. It is surprising that there is as little difference as there is.[21] Overall, community college students have a larger fraction of their tuition costs offset by student aid than do their counterparts at other institutions. Clearly, the general state policy of community colleges as the lowest-priced higher education

21. The amounts of state assistance going to the various institutional sectors for 1976-77 (except for New York) were estimated by applying the 1975-76 distributions of state aid that underlie Appendix Table B6e to total state appropriations for student aid in 1976-77 as reported by Boyd, *NASSGP: 9th Annual Survey*. Hence, the amounts of state aid received by each sector are only approximations. Data on tuition and fee revenues came from National Center for Education Statistics, *Financial Statistics of Institutions of Higher Education, Fiscal Year 1977*. For New York, state aid figures came from state officials; tuition and fees charged (as reported in NCES, *Higher Education Directory, 1976-77*) were used instead of tuition and fee revenues.

option prevails after, as well as before, student aid (see Appendix Table B10).

When other costs of attendance are included, the picture changes considerably.[22] As Table 6 shows, federal aid offsets approximately the same fraction of costs at two- as at four-year public institutions, while state aid covers only a small fraction of community college costs (except in New York). The result is that student aid from all sources offsets a slightly lower fraction of costs of attendance for community college students than for other students in the public sector for the states with large community college enrollments (except Texas). In the rest of the states there is no real difference.

Since all sources agree that community college students are the least affluent participants in higher education, Table 6 presents strong evidence (to the extent the cost of attendance estimates are accurate) that current financial assistance programs meet a lower fraction of need for community college students than for those attending either senior public institutions or private colleges.

Utilization of Aid by Tuition Level and Family Income

The previous comparison between student aid and college costs ignored the other key determinant of student need--family income. This discussion

22. Nontuition costs reflect only national differences among institutional types, not among states. The main bias is probably *among* rather than *within* states, following general cost of living differentials throughout the country.

Sucher et al., *Student Expenses, 1976-77*, report nontuition budgets for "institutional housing," "private housing," and "commuter" students, but not for the "average" residential arrangement. Hence, the following arbitrary allocations of students in each sector among types of living arrangements are assumed: community college students are evenly divided between "private" housing and "commuter" status; public four-year students are evenly spread among all three categories; and 60 percent of private sector students live in institutional housing, 30 percent in private housing, and 10 percent commute. The nontuition budgets then become, respectively, $2,086, $2,121, and $2,253. The allocations among living arrangements are consistent with the findings of a 1975 Carnegie Council Survey, as reported by John Shea, *Design and Functions of the System of Higher Education: Background Information for the United States*, Berkeley, Calif.: Carnegie Council on Policy Studies in Higher Education, September 15, 1977, Table 2.

Table 6. Student Aid as a Percentage of Total Estimated Costs of Attendance, 1976-77

	Student Aid				
	BEOG	Campus-based	All federal	State	State and federal
National:*					
2-year public	6.3%	2.3%	8.6%	0.8%	9.4%
4-year public	5.2	3.9	9.1	1.7	10.8
Private	3.2	3.3	6.5	3.0	9.5
California:					
2-year public	4.8	2.3	7.1	0.5	7.6
4-year public	3.7	3.4	7.1	2.6	9.8
Private	2.2	2.5	4.6	4.4	9.0
New York:*					
2-year public	5.5	1.9	7.4	4.6	12.0
4-year public	6.2	2.9	9.1	7.4	16.5
Private	2.6	2.0	4.6	4.1	8.7
Illinois:					
2-year public	5.7	2.8	8.5	1.3	9.8
4-year public	4.8	3.1	7.9	4.6	12.4
Private	3.3	2.7	6.0	7.3	13.3
Texas:					
2-year public	6.7	1.9	8.7	0.3	9.0
4-year public	5.0	2.5	7.4	0.5	7.9
Private	5.2	4.3	9.5	2.7	12.2
Florida:					
2-year public	7.5	2.1	9.6	0.2	9.8
4-year public	5.5	3.5	9.0	1.6	10.5
Private	3.3	3.4	6.8	1.0	7.7
All Others:					
2-year public	6.9	2.3	9.2	0.6	9.8
4-year public	5.0	3.7	8.8	1.1	9.9
Private	3.4	3.7	7.1	2.3	9.4

*All figures exclude the City University of New York.

Source: See footnotes 21 and 22 for estimation procedures and sources.

attempts to account for the effect of income as well as tuition by examining the receipt of aid by students grouped according to family income and tuition costs, as well as type of institution. Such an examination is possible using special tabulations of the 1976-77 CIRP freshman data. The main question to be asked is whether community college students from various income levels are more or less likely to receive a particular kind of aid than their counterparts at similarly priced four-year colleges or universities.[23]

Table 7 presents the fraction of first-time, full-time freshmen in a given tuition/income cell who received assistance under any of the four main Office of Education programs. Several interesting points emerge.

First, the table emphasizes the importance of considering income distributions, as well as tuition, when judging the likelihood that similarly situated students would be supported. For instance, 20.4 percent of all the students at "low" tuition universities receive some federal award, compared to 24.1 percent of students at similarly priced community colleges. This seems to suggest that a student would have a better chance of receiving aid if he attended a "low" tuition two-year college than university. However, comparing the two groups of institutions more closely, it is apparent that a student with income below $25,000 is much more likely to receive federal support if he attends a university instead of a two-year college. This finding implies caution in drawing conclusions on the relative adequacy of aid without taking income differences into account--such as in the preceding parts of this report. In such aggregate comparisons, a larger proportion of community college students receiving aid is a necessary but not sufficient condition for concluding that students in similar financial situations have as much chance of being

23. Because tuitions are so much higher at private institutions than at community colleges, the comparisons were confined to the public sector. Grouping public institutions by tuition generally also means grouping certain states together. Undoubtedly, state idiosyncracies affect participation in student aid programs, but the discussion implicity assumes that tuition alone is a powerful factor.

One of the limitations of the tabulations is that dependent and independent students cannot be distinguished. Since only first-time, full-time freshmen were surveyed, the number of independent students should be small, but they still would be most prevalent at community colleges.

Table 7. Recipients of Federal Student Aid as Percentage of All First-Time, Full-Time Freshmen at Public Institutions, 1976-77

	Family Income							
	Less than $6,000	$6,000-9,999	$10,000-12,499	$12,500-14,999	$15,000-19,999	$20,000-24,999	More than $25,000	Total
Lowest Tuition:								
2-year <$200	45.5%	34.4%	22.3%	13.8%	9.0%	7.4%	4.1%	19.2%
4-year <$300	49.6	30.2	14.5	8.7	5.9	3.6	2.6	9.1
Low Tuition:								
2-year $201-$500	54.5	43.6	25.1	17.6	11.7	8.9	5.4	24.1
4-year $301-$700	78.5	70.4	48.4	35.8	23.7	11.5	7.1	39.6
University <$500	69.6	56.2	42.7	26.0	17.0	9.2	3.0	20.4
Moderate Tuition:								
2-year >$500	64.4	56.2	41.7	30.5	18.7	11.9	7.0	30.2
4-year $301-$700	78.5	70.4	48.4	35.8	23.7	11.5	7.1	39.6
University $501-$700	72.1	59.8	41.3	28.8	20.0	10.1	4.7	24.0
High Tuition:								
4-year >$700	72.5	60.4	47.2	35.9	24.0	13.1	6.8	31.6
University >$700	68.9	62.5	44.5	33.7	21.4	11.4	4.1	21.5

Notes: Unduplicated count of recipients. Aid includes BEOGs, SEOGs, CWS, and NDSL.
Source: Tabulations by Policy Analysis Service, American Council on Education, from 1976 CIRP freshman data.

awarded aid at a community college as at an upper-level institution.

Second, it would be expected that at any given income level, the probability of receiving aid would rise with tuition. This expectation appears to be borne out among two-year colleges but not consistently among the senior institutions. This might be attributable more to vagaries in the data (with which the four-year colleges with tuition between $301 and $700 seem particularly afflicted) than to an actual independence of tuition and aid.

The most interesting implication of the table concerns the utilization of student aid. According to the table, in the lowest tuition range, community college students at any given income level (except below $6,000) are generally more likely to be awarded financial aid than their counterparts attending upper-level institutions. This pattern seems to be attributable to the Basic Grant program and contrasts with the campus-based programs. As can be seen from Appendix Tables B11 and B12, in this lowest tuition range a larger fraction of community college than four-year

college students at each income level over $6,000 receive Basic Grants. The opposite tends to be true for the campus-based programs, with community college students generally less likely to be funded than their four-year counterparts.

The situation is different in the "low" and "moderate" tuition ranges, where at most income levels, community college students are least likely to receive any federal aid (see Table 7). The cause of this pattern is not clear. Again, in those tuition ranges community college freshmen have the lowest probabilities of receiving campus-based aid (Appendix Table B11), but they also are frequently less likely to receive a Basic Grant (Appendix Table B12). The campus-based programs still seem to offer the major hurdle to community college students; the differences between the probabilities of students at the lower- and the upper-level institutions receiving aid are not as large with Basic Grants as with the campus-based programs.[24]

In summary, the data indicate a mixed showing for Basic Grants and a consistently poor performance for campus-based aid in terms of the effective access of full-time community college freshmen to the programs. Controlling for income and tuition, students at a community college do not seem to be at as much of a disadvantage in receiving BEOGs as in being awarded some campus-based aid, and indeed in a number of instances two-year college students seem to have some advantage in getting a Basic Grant, compared to their senior institution counterparts.

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24. Unfortunately, the tabulations do not permit disaggregation among the campus-based programs in a way that would indicate whether community college students' disadvantage was common to all three programs or only to one or two.

Campus Administration of Student Aid

One of the most elusive factors in understanding community colleges' participation in student aid programs is the role played by the student aid administrator. With little concrete evidence available, observation and experience have led many concerned with the utilization of student aid to attribute much of community colleges' disadvantage to their student aid operations and implicitly to the policymakers at the state and campus levels who attach a low priority to such support services. Gladieux asserts that "Many two-year institutions are penalizing themselves and their students by not devoting more systematic attention and greater staff resources to the management of student assistance."[25] After some discussion of this hypothesis, this section attempts to test it with evidence from a 1974 survey of the financial aid profession. The analysis provides support for the notion that community college aid administrators are less experienced than their counterparts elsewhere and that they have smaller staffs but are charged with similar duties and a similar number of programs to run. Statistical analysis confirms, though, that institutional size is much more strongly related to characteristics of aid administrators and their offices than is institutional type; indeed at similarly sized institutions in 1974, aid administrators at community colleges earned higher salaries than they would have elsewhere. Consequently, administration of aid on the campus may explain some but not all of the differences in aid utilization identified previously.

A bleak picture of the obstacles confronting a community college aid officer emerges from an article by Joseph Russo, based on personal experience and a small survey.[26] Some of the problems he cites are inherent in the job, such as students who enter with less awareness of aid opportunities, who have been away from education for some years, and who are more apt to be overwhelmed by the paperwork and end up filing many late and incomplete applications. He reserves most of his criticism for the institu-

25. Gladieux, *Distribution of Student Assistance*, p. 18.
26. Joseph A. Russo, "Community College Student Aid: A Hard Look from Within," *The Journal of Student Financial Aid*, Vol. 6, No. 1, February 1976, pp. 20-27.

tional climate in which the aid officer has to function, identifying the main problem as a lack of "institutional commitment" to supporting the student aid operation with adequate staff and opportunities for training. Without this support, he finds a "circle of mismanagement" in which the salary and status attached to the job are low enough that it attracts only inexperienced people. Without opportunities and encouragement for training, they have particular difficulties coping with their numerous responsibilities. As a result, they either do not apply for program funds, apply for only small amounts of funds that they can administer, or do not use all the money they have received so are allocated less the next year. They are not able to keep abreast of new developments and lag in passing along information to their students. Then the aid officers usually move on to better-paid, less frustrating jobs and are replaced by other inexperienced, underpaid, undersupported student aid officers.

To test this "tale of woe" hypothesis with a little more rigor, the results of a 1974 national survey of the student aid profession were analyzed.[27] Two types of variables were examined: characteristics of the student aid officer and characteristics of the office. In the former category, five variables seemed particularly important as reflections of ability to serve the students: experience, education, age, employment status (part-time or full-time[28]), and annual salary. Four other variables would reflect the functioning of the aid office itself: the size of the staff, position in the institutional hierarchy (number of people through whom the aid administrator reports before reaching the president), the number of aid programs administered, and office responsibilities.

From examining these attributes of student aid administrators and their offices by institutional type and size, both with simple cross

27. William J. Bushaw of the University of Iowa surveyed approximately 1,900 members of the National Association of Student Financial Aid Administrators (NASFAA) with questions on personal characteristics, job histories, and the functioning of the aid office. He presented his results in "A Survey of the Financial Aid Profession Nationally," University of Iowa, May 1977. A similar survey was conducted in 1977, with results reported in NASFAA, *Characteristics and Attitudes of the Financial Aid Administrator*, Washington, D.C.: NASFAA, 1978. A data tape was available only for the 1974 survey, so the analysis here is confined to that study.

28. Apparently, "part-time" indicates that the person has other duties at the institution in addition to student aid.

tabulations and with some tentative regression analysis,[29] institutional enrollment appears much more strongly related to all these variables than is institutional type. For example, small institutions of any kind generally have smaller staffs and less experienced aid administrators than do larger institutions. Thus community colleges' lower enrollments account for much of the difference between them and their senior counterparts. Any disadvantage to community college students should be viewed in terms of students attending institutions of comparable size.

Table 8 permits such comparisons to be made. Even controlling for enrollment, it appears that community college aid administrators still have fewer years of experience and smaller staffs, and are more likely to devote less than their full time to student aid. At the same time, they offer as many programs and have as many office responsibilities as those at private and senior public institutions.[30] This evidence supports Russo's picture of the overworked community college aid administrator. Other evidence from the table serves to cloud the picture, though. Community college aid administrators are at no disadvantage in terms of education or age nor, more important, in terms of salary where they actually have an advantage. Even controlling for factors such as experience, education, and sex as well as institutional size, aid administrators seem to earn more at community colleges than elsewhere. Perhaps this reflects a desire by community colleges to attract more qualified (though not necessarily more experienced) aid administrators, or perhaps a recognition that the job is more difficult at a community college. If the higher salaries reflect a serious concern by campus-level and state policymakers for financial aid services, that concern has not extended to the workload aid administrators face at community colleges.

Much of this analysis of the 1974 survey of the financial aid profession lends support to Russo's hypothesis, yet the finding on salary contradicts

29. For technical reasons, the survey data do not lend themselves to regression analysis, which here tends to overstate the true significance of a relationship between two variables. Consequently, more confidence can be put in findings of insignificant relationships than of significant ones.
30. Appendix Table B13 presents the results of some regressions that suggest the effects of institutional size prevail in general and not just for institutions with 2,500-4,999 students.

a key part. Furthermore, once institutional size is controlled, the differences among administrators by types of institutions do not seem large enough to be responsible for differential utilization of student aid.

Table 8. Characteristics of Financial Aid Administrators, 1974

Characteristics	All institutions			Institutions with enrollments of 2,500-4,999*		
	2-year public	4-year public	Private	2-year public	4-year public	Private
Experience: median years in financial aid	3.0	5.4	3.6	3.4	4.4	5.0
Education: percent with more than a B.A.	75.9	73.2	51.0	78.1	78.0	62.5
Age: median	36.4	37.6	37.6	34.9	33.1	35.6
Full time: percent working in financial aid full time	49.0	77.9	60.9	77.1	85.3	87.5
Salary: median annual	14,287	15,025	11,551	15,216	13,683	13,416
Staff: median number Full-time professional	0.65	1.94	0.72	0.79	1.17	1.41
Full-time clerical	1.41	2.89	1.38	1.70	2.15	2.17
Part-time assistants	1.30	2.33	1.40	1.30	1.88	2.25
Hierarchy: median number of people to report through to the president	0.45	0.74	0.28	0.69	0.60	0.50
Programs administered: median number out of 11 common aid programs	8.5	9.6	9.5	8.9	9.4	9.8
Office responsibilities: median number out of 10 common ones	6.9	6.8	6.8	6.8	6.8	6.7

*The size of the median public institution in the nation.
Source: Data tape of the 1974 survey of financial aid administrators conducted by William J. Bushaw of the University of Iowa and NASFAA.

Conclusion

At a minimum, the discussions and analyses in this report have shown that determining whether community colleges receive their share of student assistance programs is not just a simple empirical matter. Rather, conceptual issues are the fundamental source of controversy on utilization: What is need? What costs of education should be counted? How much should parents and students be expected to contribute from their past, present, and future resources? How should public assistance at the federal and state levels supplement these private contributions toward college costs? In short, there needs to be a standard against which the actual distribution of student aid can be judged, and the choice of that standard crucially affects the verdict.

Even if a standard is rationally selected, the lack of necessary data prevents the standard from being satisfactorily compared with the actual aid distributions. Macro data on student incomes by institutional type within states are needed to compare available aid with existing student needs. Micro information on individual student aid packages is essential to calculating the extent of overawarding. Until these data are produced, all judgments on underutilization or overawarding will remain tentative.

With these cautions in mind, much of the study attempted to make some of these tentative judgments by examining a number of pieces of information relating to utilization of student aid. In the area of overawarding, it became clear that further efforts are indeed needed to encourage states that do not coordinate their assistance programs with Basic Grants to do so. The trend among the states is certainly in that direction already. At the federal level, it would be more equitable for the BEOG program to consider the total amount of a student's veterans' educational benefits in determining an award, not just half as is the current practice.

Examining the question of underutilization of aid by community colleges, the analysis here suggests that there are grounds for the concern, particularly regarding the campus-based programs. All three "second-best" analytical approaches indicate that community colleges fared much better with Basic Grants than with the campus-based aid, but better with the campus-based programs than with state aid. Freshmen within a given income and

tuition range are less likely to receive campus-based support if they attend a community college than a senior public college, but this problem does not appear to extend to Basic Grants. Student aid from all sources consistently covered at least as large a fraction of total costs of attendance at senior public institutions as at community colleges.

Since community colleges attract the least affluent students, this finding indicates that the aid offsets a lower fraction of total need for community college students than for others. In most states, the discrepancy (based on comparisons between aid and enrollment) has increased in the last few years. It appears that by shifting toward the private and senior public institutions, campus-based funds were coming to serve more affluent students. At the same time the substantial increase in independent students aided under the campus-based programs leaves in doubt whether the same shift up the income scale took place within institutional sectors, especially among community colleges.

The search for explanations for community colleges' disadvantage under the campus-based programs found no reason to blame the panel review process. A relative reduction in the number of community colleges participating in the programs might have been a contributing factor, but that conclusion again is uncertain because of lack of data on the number of institutions eligible to participate. A further frequently offered explanation for community colleges' handicap in attracting student aid was explored--namely, the qualifications of the student aid administrator and his office. The analysis found that institutional size has more to do with characteristics of the aid office and its administrator than does the type of institution. Nevertheless, at a given level of enrollment, the aid officer at the community college does tend to be the least experienced and to have the smallest staff. The difference, though, is not large, so community colleges' problems do not seem solely attributable to the student aid office. Indeed, salaries for comparable aid administrators appear higher at community colleges than at other institutions.

Additional explanations for the findings of this report include the peculiar nature of the community college student body, often mentioned as a factor that lowers the utilization of aid programs. Less-than-half-time students are ineligible for the major forms of assistance, and need determina-

tions treat adults more strictly if they are the students than if their children were applying. It is widely believed that aid-application forms and processes pose substantial barriers to very low income students, often from less educated families, and certainly to those for whom English is a second language. Although these points seem cogent, they do not account for the better performance of community colleges in the Basic Grant program, and hence this study cannot confirm that such barriers explain the lower utilization of the campus-based programs.

A very different interpretation would view the findings in this report as evidence that federal and state student aid policies are successfully being implemented.[31] If "access" is the purpose of Basic Grants, and "choice" one of the goals of campus-based aid, then under this view it is not surprising that community college students participate more in the former than in the latter. Particularly for state programs, it makes sense to attribute the lower community college utilization rates to conscious state policies. This hypothesis does not, however, seem consistent with the finding that even controlling for the level of tuition (as well as income) community college freshmen appear least likely to receive campus-based aid, since presumably a policy to encourage choice would be primarily sensitive to tuition. Although the findings in this report may to some extent result from the dual policy goals of access and choice, that explanation alone is not sufficient.

Perhaps the answer is that while none of these factors is solely responsible for community colleges' lower utilization of the campus-based programs, each of them contributes in varying degrees to that result: the panel review process; declining rates of institutional participation; the "nontraditional" nature of the students; conscious policies reflected in the eligibility criteria; and (at the state and campus levels) a low funding priority attached to financial aid administration. To the extent that the lower utilization may be attributed to explicit policy, there is no solution short of revising those policies. And pending a consensus on a definition of need and more reliable methods for measuring it, the evidence available does not present a strong case for such a revision.

31. I am grateful to Chester Finn for suggesting this perspective.

Appendix A: The Dilemma of Data

As pointed out in this report, data problems inhibit reliable calculations for student need on a national or state by state basis for each institutional sector. This appendix describes drawbacks with three potentially useful data sets and then discusses one extensive but severely flawed attempt to calculate the total need of students.

The most commonly used source of data on the income distributions of students is the Bureau of the Census, Current Population Reports Series P-20, which reports the family income of dependents 18 to 24 years old, by full-time attendance at college. This is a reliable source of annual information since it represents random selection of all families with dependents 18 to 24 years old, and the person answering all the questions for the household (generally the head or the spouse), not the student, provides the income figure. Unfortunately, the information is neither available by state nor by any measure of educational cost that would permit an approximation of need.

A second source of income data from the Census Bureau is the 1975 Survey of Income and Education. With a substantially expanded sample size, much income information is available for individual states but not for individual students since there are too few of them in the sample to produce significant results, even for the largest states. Furthermore, the only institutional attribute reported is control with no distinction between two- and four-year campuses. The SIE data also have the Census Bureau's stamp of reliability, but interestingly they imply incomes that are about 20 percent higher than for comparable families in the P-20 series. Presumably the SIE figures are more accurate, with the differences attributable to the more detailed questionaire used in the SIE, the fact that the SIE took place in the late spring when families' income tax returns were available for reference, and other methodological differences.[1]

The Cooperative Institutional Research Program of the University of California at Los Angeles and the American Council on Education (ACE) annually surveys first-time, full-time freshmen at approximately 400 institutions around the country. The income information derived from this survey is available by institutional type, tuition level, and state. Although the CIRP data were the foundation of Daryl Carlson's extensive attempt to calculate total student need (discussed further below), these data are not adequate for making very useful estimates of student need for several reasons.

The main drawback with the CIRP data is their reliability. The income information is reported by the students themselves, who are unlikely to

1. As Joseph Froomkin has suggested, parental income--not family income--is the relevant concept in discussions of need since only parental income is used in the need-determination process, and he estimates this to fall between the P-20 and SIE versions of family income. See Joseph Froomkin, *Middle Income Students and the Cost of Postsecondary Education*, Washington, D.C.: Joseph Froomkin, Inc., February 1978, pp. 8-9.

know their family incomes with accuracy.[2] Quite possibly, though, the data are more useful for comparing incomes among institutional types than for indicating incomes in absolute terms (which is necessary for calculating need). However, there are so few institutions of any one type within a state that the income distributions by state and type are particularly suspect. Furthermore, since only first-time, full-time freshmen are surveyed, it would be inaccurate to attribute their incomes to all students since students from the less-affluent families tend to have higher attrition rates. In addition, the excluded part-time students are apt to have lower incomes than full-time students. Particularly at community colleges, then, the direction of bias resulting from ascribing the CIRP freshmen data to all undergraduate classes is unclear. Finally, there are criticisms of the group of institutions on which the data are based. Although they were selected to reflect the national collection of institutions, it seems that community colleges are underrepresented (though this has become less of a problem since 1974) and that a degree of self-selection enters into the group of surveys that are returned in time to be included.

In spite of these difficulties, the CIRP data were the basis for an elaborate but severely flawed attempt by Daryl Carlson to calculate the total need of students.[3] Essentially, Carlson attempted to perform an aggregate need analysis for all students in each state and institutional sector in 1974-75 by filling in the blanks with bits and pieces of information from a variety of sources. The foundation for the calculations was the CIRP freshman income distributions, by state and sector. Student budget data came from the College Scholarship Service student expenses reports. Enrollment and student-migration patterns and family contributions were calculated according to the BEOG schedule. Although he was careful with details such as using a distribution of family contributions for each income level rather than simply an average and differentiating between state of residence and state of enrollment, the accuracy of his results is seriously impaired by two factors: the problems with the CIRP data (explained above) and the substitution of national averages for missing state and sector information. Although this may be a reasonable approach in the aggregate, when the emphasis is on the differences among states and sectors, it defeats the purpose. In particular, assuming national student budgets unnecessarily hides the wide variation in tuitions among states since it would have been possible at least to use a state-specific tuition estimate from the National Center for Education Statistics or the College Board. Carlson does warn that this procedure of substituting national averages requires extreme caution in using his

2. Interestingly, ACE compared median incomes of students from the CIRP data and the Census P-20 series and found the two remarkably close over time. Perhaps the biases in the freshman survey produce the same underreporting as in the P-20. See Carol Van Alstyne and Cathy Henderson, *Family Income of College Students: Comparison of ACE and Census Survey Data*, Washington, D.C.: ACE, December 1972, and a table showing a similar finding for 1975, *Distribution of Dependents 18-24 Years Old by Enrollment Status and Family Income--Fall, 1975*, Washington, D.C.: ACE, Policy Analysis Service, 1977.

3. The following discussion and table are based on unpublished data and documentation of Carlson's work for the U.S. Office of Education.

results; I fear that it makes those instances useless for most purposes.

Indeed, the following discussion highlights the futility of using data in which there is so little confidence. According to Table A1 (column 3), current public student assistance averages about 30 percent of need for community college students, 40 percent for private colleges, and 46 percent for those attending senior public institutions. This seems reasonable. Since the whole is the sum of the parts, it is important that at least the largest parts also seem reasonable. But they do not. It is hard to believe that average need among California's community college students (column 4) exceeds $800, and that state and federal aid meets less than one fifth of this. At the other extreme, it is equally unlikely that the average student at a two-year public institution in Florida has only $172 of need and that aid from state and federal sources exceeds this by 50 percent. If the data were reliable, these would be very interesting results. As it is, the oddity can be ascribed more to the calculations of need than to the actual condition of need.[4] Since California contributes over one quarter of the national need at community colleges, according to Carlson, it cannot be dismissed as simply one state. It also calls into question the "reasonable" results on the national basis. Although Carlson's approach is admirable, the results are no more reliable than the underlying data.

4. Not all the unreliability resides in the need figures. On the aid side, the state component could be more accurate. The inclusion of the two-year institutions of the City University of New York with the four-year campuses in the federal aid reports substantially lowers the estimate of aid going to New York's two-year sector and raises it for the four-year.

Table A1. Carlson's Estimates of Student Need (Adjusted to 1976-77) Compared to State and Federal Student Aid

	In millions of dollars		Total aid as percent of total need	Dollars per FTE student	
	Total student need	Total student aid		Total need	Total aid
National:*					
2-year public	$1,858	$ 524	23.2%	$ 790	$228
4-year public	2,489	1,135	45.6	622	291
Private	2,366	913	38.6	1,206	465
California:					
2-year public	521	98	18.8	867	162
4-year public	158	97	61.4	424	261
Private	170	67	39.4	1,220	478
New York:*					
2-year public	116	42	*	652	334
4-year public	115	71	*	478	485
Private	438	144	32.9	1,416	464
Illinois:					
2-year public	NA	35	NA	NA	247
4-year public	82	55	67.1	510	344
Private	NA	79	NA	NA	676
Texas:					
2-year public	144	33	22.9	946	214
4-year public	155	54	34.8	573	199
Private	56	35	62.5	817	515
Florida:					
2-year public	20	30	150.0	172	254
4-year public	46	27	58.7	503	296
Private	45	19	42.2	871	371
All others:					
2-year public	934	287	30.7	805	247
4-year public	1,933	831	43.0	675	290
Private	1,517	570	37.6	1,188	446

Notes and sources: Total student need is based on unpublished estimates for 1974-75 by Daryl Carolson, updated to 1976-77 by increasing Carlson's figures by 14 percent fo reflect inflation and then adjusting them for changes in FTE enrollment.
Total student aid includes BEOGs, SEOGs, CWS, NDSL, and state assistance. Aid from the federal programs was calculated from the same sources as Table 4. Estimates of state aid came from applying the distribution of aid by type and control from ECS and NCHEMS, State Descriptive Profiles (as in Appendix Table B6e) to amounts of aid reported in Boyd, NASSGP: 8th Annual Survey, 1976-77 Academic Year, adjusting for intersectoral shifts in enrollment between 1974-75 and 1976-77.
FTE of total enrollment comes from NCES, Opening Fall Enrollment, 1976.
*New York and national student aid numbers exclude CUNY, but Carlson's estimates of need include it. Between 1975-76 and 1976-77, CUNY began charging tuition at its campuses, and as a result enrollment at CUNY dropped, particularly at its four-year campuses. Unfortunately, how much the new tuition increased total student need cannot be determined, so accurate comparisons cannot be made between total need and total aid in New York's public sector.
NA = not available.

Appendix B: Supplementary Tables

Table B1. Veterans' Educational Benefits and Overawarding under the 1977-78 Basic Grant Program

Income (excluding veterans' benefits)*	Maximum BEOG under: Current system	Horizontal equity	Maximum overaward
Single independent veteran:			
$ 0	$1,538	$ 488	$1,050
250	1,350	300	1,050
500	1,162	0	1,162
1,000	788	0	788
1,500	412	0	412
1,783	200	0	200
1,800	0	0	0
Married veteran, no children:			
$ 0	1,800	1,800	0
1,000	1,800	1,560	240
2,000	1,800	1,060	740
3,000	1,392	560	832
4,000	892	0	892
5,385	200	0	200
5,400	0	0	0
Dependent beneficiary (in 3-person family):			
$ 0	1,800	1,800	0
1,500	1,800	1,800	0
3,000	1,800	1,570	230
5,000	1,450	1,170	280
7,500	950	605	345
9,000	575	0	575
10,250	200	0	200
10,500	0	0	0

Note: The figures in the table were calculated according to the following formulas and assumptions:
Maximum BEOG under current system =
1,800 - (contribution rate) (income - family size offset + .5 [veterans' benefits]).
Maximum BEOG under horizontal equity =
1,800 - (contribution rate) (income - family size offset + veterans' benefits).
Maximum overaward = maximum BEOG under current system - maximum BEOG under horizontal equity.
The examples assume 9 months of veterans' benefits; no assets or special expenses or allowances; minimum BEOG of $200; and the contribution rates from discretionary income, the family size offsets, and level of veterans' benefits in effect in 1977-78.
*Income = adjusted gross income + nontaxable income - federal income taxes.

Table B2. Distribution of Undergraduate Recipients of Any Campus-Based Aid, FY1976

	Status				
		Dependent students by family income			
	Independent students (% of total recipients)	Total dependent	Less than $6,000	$ 6,000-11,999	$12,000 or more
National:*					
2-year public	41.3%	100%	43.5%	35.9%	20.6%
4-year public	25.9	100	31.1	36.7	32.3
Private	12.7	100	22.1	33.7	44.2
California:					
2-year public	56.4	100	51.1	34.7	14.3
4-year public	44.9	100	23.7	40.7	35.6
Private	21.7	100	26.2	35.4	38.5
New York:*					
2-year public	24.0	100	22.6	41.9	35.6
4-year public	24.3	100	19.3	36.3	44.4
Private	12.3	100	18.7	32.6	48.7
Texas:					
2-year public	28.8	100	52.7	34.0	13.2
4-year public	23.1	100	47.9	35.0	17.1
Private	14.9	100	32.0	36.9	31.1
Illinois:					
2-year public	53.6	100	38.8	34.5	26.6
4-year public	26.9	100	26.1	38.3	35.6
Private	16.3	100	17.7	31.3	51.0
Florida:					
2-year public	30.7	100	56.2	32.8	11.0
4-year public	25.9	100	47.8	39.1	13.1
Private	17.7	100	29.8	33.6	36.7
Other states:					
2-year public	39.2	100	42.6	36.0	21.4
4-year public	24.5	100	31.0	36.4	32.6
Private	11.5	100	21.7	33.7	44.6

Note: Unduplicated count of recipients.
*Excludes CUNY.
Source: See text Table 2.

Table B3. Distribution of Undergraduate Recipients of Any Campus-Based Aid, FY1972 (in constant 1975-76 dollars)

	Status				
		Dependent students by family income			
	Independent students (% of total recipients)	Total dependent	Less than $6,000	$ 6,000-11,999	$12,000 or more
National:*					
2-year public	24.9%	100.0%	46.0%	41.0%	13.0%
4-year public	19.3	100.0	35.3	40.4	24.3
Private	9.1	100.0	26.1	35.2	38.7
California:					
2-year public	35.8	100.0	50.0	42.8	7.2
4-year public	37.4	100.0	37.8	42.0	20.2
Private	21.5	100.0	27.7	38.4	33.9
New York:*					
2-year public	12.3	100.0	37.1	41.5	21.4
4-year public	18.0	100.0	25.4	37.8	36.8
Private	9.3	100.0	22.2	35.8	42.0
Illinois:					
2-year public	31.9	100.0	53.5	33.5	13.0
4-year public	22.0	100.0	28.6	41.4	30.0
Private	11.3	100.0	20.0	32.0	47.9
Texas:					
2-year public	11.1	100.0	49.3	39.6	11.1
4-year public	16.7	100.0	50.3	38.7	10.9
Private	10.9	100.0	39.2	38.0	22.7
Florida:					
2-year public	16.4	100.0	52.0	38.2	9.8
4-year public	23.9	100.0	38.0	42.2	19.8
Private	14.7	100.0	32.3	37.3	30.4
Other states:					
2-year public	23.9	100.0	43.7	42.0	14.3
4-year public	17.5	100.0	35.0	40.4	24.6
Private	7.6	100.0	25.8	34.9	39.3

Note: Unduplicated count of recipients.
*Excludes CUNY.
Source: See text Table 2.

Table B4. Average Awards to Undergraduates from All Campus-Based Programs, FY1976

	Status					
		Dependent students by family income				
	Independent students	Total dependent	Less than $6,000	$6,000-8,999	$ 9,000-11,999	$12,000 or more
Naticnal:*						
2-year public	$ 780	$ 652	$ 634	$ 649	$ 660	$ 686
4-year public	1,126	842	827	862	888	818
Private	1,088	1,007	1,048	1,057	1,052	950
California:						
2-year public	818	607	585	610	634	660
4-year public	1,248	955	1,010	1,049	1,003	835
Private	1,061	996	1,075	1,054	998	912
New York:*						
2-year public	721	675	595	627	698	739
4-year public	900	873	791	871	953	875
Private	1,142	981	1,085	1,074	1,002	901
Illinois:						
2-year public	861	803	826	832	747	774
4-year public	1,329	888	1,101	847	804	795
Private	1,118	993	1,151	1,100	1,005	903
Texas:						
2-year public	742	661	659	647	643	705
4-year public	1,031	709	653	741	783	767
Private	1,142	1,004	1,108	903	1,023	957
Florida:						
2-year public	862	715	685	729	765	783
4-year public	1,351	1,018	1,054	959	998	1,018
Private	1,034	1,177	1,042	1,257	1,331	1,182
Other states:						
2-year public	721	641	628	641	645	663
4-year public	1,108	835	818	853	882	815
Private	1,079	1,007	1,031	1,059	1,059	957

Note: Unduplicated count of recipients.
*Excludes CUNY.
Source: See text Table 2.

Table B5. Average Awards to Undergraduates from All Campus-Based Programs, FY1972 (in constant 1975-76 dollars)

	Status					
		Dependent students by family income				
	Independent students	Total dependent	Less than $6,000	$6,000-8,999	$ 9,000-11,999	$12,000 or more*
National:†						
2-year public	$ 866	$ 806	$ 843	$ 824	$ 785	$ 674
4-year public	1,161	1,052	1,166	1,121	1,049	836
Private	1,294	1,274	1,626	1,472	1,275	957
California:						
2-year public	809	809	838	819	775	657
4-year public	1,476	1,335	1,531	1,436	1,281	930
Private	1,443	1,316	1,566	1,479	1,368	1,001
New York:†						
2-year public	993	828	890	868	832	681
4-year public	1,168	1,118	1,258	1,213	1,161	953
Private	1,287	1,177	1,383	1,301	1,215	1,005
Illinois:						
2-year public	1,043	916	971	947	846	705
4-year public	1,464	1,190	1,388	1,306	1,207	922
Private	1,577	1,170	1,657	1,448	1,234	864
Texas:						
2-year public	710	771	807	786	729	652
4-year public	999	932	944	945	945	828
Private	1,412	1,374	1,547	1,480	1,346	1,012
Florida:						
2-year public	880	759	763	761	754	751
4-year public	1,265	1,291	1,480	1,372	1,198	952
Private	1,323	1,297	1,383	1,371	1,350	1,128
Other states:						
2-year public	866	799	840	822	787	666
4-year public	1,082	1,024	1,136	1,092	1,022	816
Private	1,218	1,283	1,673	1,497	1,271	949

Note: Unduplicated count of recipients.
*This column is less reliable than the others because it includes few recipients.
†Excludes CUNY.
Source: See text Table 2.

Table B6a. Enrollment-Based Shares of BEOG Funds, 1973-74, 1976-77, and 1977-78

	1973-74*	1976-77†	1977-78†
National:‡			
2-year public	0.83	1.03	1.02
4-year public	1.07	0.96	0.93
Private	1.15	1.06	1.13
California:			
2-year public	0.90	1.00	0.97
4-year public	1.04	.96	1.03
Private	1.47	1.11	1.03
New York:‡			
2-year public	0.67	1.00	1.10
4-year public	1.87	1.20	1.03
Private	0.94	0.90	0.95
Texas:			
2-year public	1.01	1.08	1.09
4-year public	0.93	.84	0.87
Private	1.16	1.47	1.33
Illinois:			
2-year public	0.70	.99	1.02
4-year public	1.18	.91	0.92
Private	1.29	1.14	1.09
Florida:			
2-year public	0.92	1.12	1.18
4-year public	1.13	.89	0.87
Private	1.09	.92	0.84
Other states:			
2-year public	0.83	1.11	1.08
4-year public	1.03	.94	0.90
Private	1.15	1.04	1.15

Note: See text footnote 15 for an explanation of enrollment-based share.
*Based on first-time, full-time enrollment, degree plus nondegree credit.
†Based on FTE of total enrollment.
‡Enrollment and dollars for CUNY are not included in these figures.
Sources: NCES, *Opening Fall Enrollment;* U.S. Office of Education, *Basic Grant Program Institutional Agreement and Authorization Report* (relevant years for all).

Table B6b. Enrollment-Based Shares of SEOG Funds, 1973-74 to 1977-78

	1973-74	1974-75	1975-76	1976-77	1977-78
National:*					
2-year public	0.69	0.59	0.54	0.56	0.52
4-year public	0.95	0.99	0.99	0.96	0.91
Private	1.41	1.48	1.57	1.60	1.72
California:					
2-year public	0.60	0.62	0.66	0.77	0.68
4-year public	1.37	1.39	1.39	1.17	1.26
Private	1.71	1.61	1.69	1.52	1.61
New York:*					
2-year public	0.92	0.94	0.91	0.96	0.82
4-year public	1.02	0.89	0.90	0.78	0.60
Private	1.02	1.07	1.09	1.12	1.25
Texas:					
2-year public	0.58	0.57	0.56	0.56	0.66
4-year public	0.73	0.78	0.81	0.79	0.76
Private	2.56	2.57	2.66	2.81	2.71
Illinois:					
2-year public	1.16	0.83	0.76	0.74	0.71
4-year public	0.78	0.92	0.88	0.91	0.77
Private	1.13	1.30	1.49	1.44	1.68
Florida:					
2-year public	0.65	0.58	0.48	0.42	0.42
4-year public	0.99	0.93	1.04	1.10	1.14
Private	1.80	2.13	2.08	2.12	2.04
Other states:					
2-year public	0.71	0.57	0.50	0.49	0.46
4-year public	0.91	0.95	0.96	0.93	0.88
Private	1.41	1.47	1.58	1.63	1.75

Note: See text footnote 15 for an explanation of enrollment-based share. These ratios are based on FTE degree and nondegree credit enrollment.
*All figures exclude CUNY.
Sources: NCES, *Opening Fall Enrollment* and U.S. Office of Education, Division of Student Assistance, application and allocation tabulations for supplementary grants (relevant years for all).

Table B6c. Enrollment-Based Shares of CWS Funds, 1973-74 to 1977-78

	1973-74	1974-75	1975-76	1976-77	1977-78
National:*					
2-year public	0.79	0.75	0.68	0.71	0.63
4-year public	0.95	0.97	1.01	1.00	1.00
Private	1.31	1.34	1.36	1.35	1.41
California:					
2-year public	0.77	0.78	0.77	0.79	0.68
4-year public	1.22	1.26	1.24	1.16	1.37
Private	1.39	1.27	1.42	1.47	1.35
New York:*					
2-year public	0.63	0.69	0.66	0.66	0.62
4-year public	1.03	0.99	0.99	1.01	1.11
Private	1.13	1.14	1.15	1.13	1.10
Texas:					
2-year public	0.96	0.79	0.78	0.72	0.70
4-year public	0.72	0.81	0.86	0.87	0.90
Private	2.02	2.07	2.00	2.12	2.07
Illinois:					
2-year public	1.40	1.12	1.07	1.08	0.85
4-year public	0.68	0.84	0.97	0.94	0.94
Private	1.04	1.09	0.97	0.98	1.27
Florida:					
2-year public	0.99	0.99	0.95	0.90	0.95
4-year public	0.72	0.76	0.85	0.91	0.79
Private	1.62	1.53	1.40	1.39	1.47
Other states:					
2-year public	0.79	0.77	0.66	0.70	0.63
4-year public	0.94	0.94	0.98	0.96	0.95
Private	1.30	1.33	1.37	1.36	1.44

Note: See text footnote 15 for an explanation of enrollment-based share. These ratios are based on FTE degree and nondegree credit enrollment.
*All figures exclude CUNY.
Sources: NCES, *Opening Fall Enrollment* and U.S. Office of Education, Division of Student Assistance, application and allocation tabulations for college work-study (relevant years for all).

Table B6d. Enrollment-Based Shares of NDSL Funds, 1973-74 to 1977-78

	1973-74	1974-75	1975-76	1976-77	1977-78
National:*					
2-year public	0.35	0.32	0.30	0.30	0.18
4-year public	1.00	1.03	1.06	1.02	1.05
Private	1.67	1.69	1.73	1.77	1.84
California:					
2-year public	0.34	0.36	0.36	0.42	0.21
4-year public	1.46	1.53	1.57	1.39	1.57
Private	2.55	2.36	2.46	2.44	2.70
New York:*					
2-year public	0.53	0.37	0.35	0.28	0.26
4-year public	1.07	0.97	0.98	0.95	0.86
Private	1.15	1.28	1.29	1.31	1.35
Texas:					
2-year public	0.25	0.25	0.26	0.47	0.13
4-year public	0.61	0.68	0.70	0.79	0.91
Private	3.49	3.48	3.70	2.99	3.26
Illinois:					
2-year public	0.42	0.30	0.28	0.33	0.07
4-year public	0.92	0.97	0.87	0.82	0.74
Private	1.72	1.81	2.10	2.07	2.61
Florida:					
2-year public	0.38	0.36	0.38	0.32	0.24
4-year public	0.98	1.06	1.07	1.22	1.22
Private	2.43	2.36	2.25	2.14	2.30
Other states:					
2-year public	0.36	0.34	0.31	0.28	0.19
4-year public	0.97	0.99	1.03	0.99	1.02
Private	1.55	1.56	1.60	1.68	1.68

Note: See text footnote 15 for an explanation of enrollment-based share. These ratios are based on FTE degree and nondegree credit enrollment.
*All figures exclude CUNY.
Sources: NCES, *Opening Fall Enrollment* and U.S. Office of Education, Division of Student Assistance, application and allocation tabulations for NDSL (relevant years for all).

Table B6e. Enrollment-Based Shares of State Student Aid, 1975-76

	2-year public	4-year public	Private
National*	0.31	0.74	2.37
California	0.17	1.25	4.19
New York*	0.72	1.10	1.07
Illinois	0.20	0.76	2.36
Texas	0.28	0.52	4.32
Florida	0.17	1.54	1.82
Other states	0.29	0.72	2.31

Note: See text footnote 15 for an explanation of enrollment-based shares. These ratios are based on FTE of total enrollment. State data by institutional type and control are not available for Alaska, Arizona, Kentucky, Mississippi, New Hampshire, New Mexico, South Dakota, and Wyoming, nor for the public sector in Wisconsin. Data on major programs only are available for Connecticut, Indiana, Maine, Massachusetts, and New York (e.g., the Tuition Assistance Program only).
*All figures exclude CUNY.
Sources: ECS and NCHEMS, *State Descriptive Profiles;* NCES, *Opening Fall Enrollment,* 1975.

Table B7. Final Allocations as a Fraction of Institutional Requests in the Campus-Based Programs, 1973-74 and 1977-78

	SEOG		CWS		NDSL	
	1973-74	1977-78	1973-74	1977-78	1973-74	1977-78
National:						
2-year public	0.38	0.30	0.48	0.43	0.42	0.26
4-year public	0.40	0.36	0.50	0.49	0.43	0.41
Private	0.40	0.35	0.53	0.47	0.44	0.41
California:						
2-year public	0.34	0.27	0.41	0.32	0.39	0.20
4-year public	0.37	0.38	0.40	0.41	0.36	0.35
Private	0.32	0.28	0.45	0.32	0.35	0.36
New York:						
2-year public	0.31	0.34	0.45	0.45	0.35	0.29
4-year public	0.34	0.30	0.36	0.41	0.32	0.30
Private	0.37	0.33	0.45	0.38	0.37	0.40
Illinois:						
2-year public	0.45	0.28	0.45	0.37	0.47	0.15
4-year public	0.43	0.35	0.43	0.39	0.47	0.33
Private	0.47	0.31	0.44	0.44	0.45	0.44
Texas:						
2-year public	0.42	0.45	0.62	0.68	0.90	0.33
4-year public	0.40	0.33	0.64	0.67	0.93	0.76
Private	0.41	0.44	0.63	0.66	0.89	0.66
Florida:						
2-year public	0.44	0.50	0.69	0.73	0.49	0.44
4-year public	0.49	0.49	0.70	0.64	0.54	0.48
Private	0.41	0.46	0.72	0.65	0.50	0.50
Other states:						
2-year public	0.39	0.30	0.49	0.44	0.42	0.29
4-year public	0.41	0.36	0.53	0.50	0.44	0.42
Private	0.40	0.36	0.54	0.49	0.44	0.40

Source: U.S. Office of Education, Division of Student Assistance, application and allocation tabulations for campus-based programs, fiscal years 1974 and 1978.

Table B8. Change in Institutions Participating in Federal Student Aid Programs, 1977-78 Compared to 1973-74

	National	Calif.	N.Y.	Ill.	Texas	Fla.	Other states
BEOG:							
2-year public							
Number	81	6	2	1	2	4	66
Percent	9.7	6.6	5.9	2.3	4.1	14.3	11.3
4-year public							
Number	37	1	0	2	5	3	26
Percent	8.1	3.2	0.0	18.2	2.1	50.0	6.9
Private							
Number	82	2	17	6	1	3	53
Percent	5.8	2.6	11.1	9.0	2.1	12.0	5.0
SEOG:							
2-year public							
Number	2	5	2	-1	-3	-1	0
Percent	0.3	5.5	5.4	-2.6	-7.7	-3.6	0.0
4-year public							
Number	29	0	3	1	5	-1	21
Percent	6.2	0.0	10.7	7.1	18.5	-12.5	5.8
Private							
Number	46	2	19	4	2	5	14
Percent	3.7	2.7	14.8	7.5	4.4	22.7	1.5
CWS:							
2-year public							
Number	21	1	2	0	2	0	17
Percent	3.0	1.0	5.1	0.0	2.4	0.0	3.7
4-year public							
Number	29	1	3	0	2	-1	24
Percent	6.0	3.4	9.7	0.0	6.9	-12.5	6.5
Private							
Number	84	6	23	8	4	4	39
Percent	6.5	7.4	16.9	13.6	8.9	17.4	4.1
NDSL:							
2-year public							
Number	-198	-37	-10	-15	-10	-5	-121
Percent	-41.2	-48.1	-33.3	-55.6	-58.8	-38.5	-38.3
4-year public							
Number	-38	0	1	1	-8	-2	-30
Percent	-8.1	0.0	3.4	7.1	-30.8	-25.0	-8.3
Private							
Number	-175	-7	3	-2	-14	-3	-152
Percent	-14.6	-8.9	2.4	-3.8	-32.6	-13.6	-17.4

Note: CUNY is included among 4-year public institutions.
Source: See Table B7.

Table B9. Federal and State Student Aid as a Percentage of Tuition and Fee Revenues, 1976-77

	Student Aid				
	BEOGs	Campus-based	All federal	State	State and federal
National:*					
2-year public	44.8%	16.3%	61.1%	5.7%	66.8%
4-year public	19.1	14.3	33.4	6.2	39.6
Private	6.0	6.0	12.0	5.6	17.6
California:					
2-year public	233.1	111.6	344.7	22.9	367.7
4-year public	17.5	16.0	33.5	12.4	45.9
Private	3.8	4.3	8.2	7.7	15.8
New York:*					
2-year public	21.9	7.7	29.6	18.4	48.0
4-year public	22.1	10.3	32.4	26.4	58.8
Private	4.3	3.5	7.8	6.9	14.7
Illinois:					
2-year public	35.8	17.5	53.2	8.0	61.2
4-year public	20.4	13.0	33.4	19.6	53.0
Private	5.9	4.8	10.7	13.1	23.9
Texas:					
2-year public	53.1	15.4	68.5	2.4	70.9
4-year public	34.1	16.9	51.0	3.5	54.5
Private	11.7	9.8	21.5	6.2	27.7
Florida:					
2-year public	35.7	10.2	45.9	0.8	46.7
4-year public	23.1	14.4	37.5	6.5	44.1
Private	6.3	6.5	12.8	1.8	14.7
Other states:					
2-year public	41.1	13.8	54.8	3.4	58.2
4-year public	18.3	13.6	31.9	4.1	36.0
Private	6.5	7.0	13.5	4.3	17.8

*All data exclude CUNY.
Sources: See text footnote 21 for sources and estimation procedures, and note to table B6e for further explanation.

Table B10. Average Tuition and Tuition Costs Remaining after Student Aid, 1976-77

	Tuition and fees per student	Tuition costs remaining after: Federal aid	Tuition costs remaining after: State and federal aid
National:*			
2-year public	$ 341	$ 133	$ 113
4-year public	743	494	448
Private	2,642	2,325	2,166
California:			
2-year public	44	-108	-118
4-year public	569	378	308
Private	3,014	2,768	2,536
New York:*			
2-year public	697	545	417
4-year public	826	604	423
Private	3,159	2,912	2,695
Illinois:			
2-year public	403	188	156
4-year public	650	433	305
Private	2,833	2,529	2,157
Texas:			
2-year public	301	94	88
4-year public	365	179	166
Private	1,856	1,456	1,341
Florida:			
2-year public	544	294	290
4-year public	671	419	375
Private	2,525	2,201	2,154
Other states:			
2-year public	425	192	177
4-year public	806	549	515
Private	2,505	2,167	2,059

*All figures exclude CUNY.
Sources: See text footnotes 21 and 22 for sources and estimation procedures.

Table B11. Recipients of Campus-Based Aid as Percentage of All First-Time, Full-Time Freshmen at Public Institutions, 1976-77

	Family Income							
	Less than $6,000	$6,000-9,999	$10,000-12,499	$12,500-14,999	$15,000-19,999	$20,000-24,999	More than $25,000	Total
Lowest tuition:								
2-year <$200	13.7%	8.5%	4.9%	4.2%	2.6%	3.1%	1.1%	5.4%
4-year <$300	26.3	13.1	7.8	4.2	2.4	1.4	0.7	4.2
Low tuition:								
2-year $201-500	21.9	17.8	10.4	6.3	6.4	3.7	3.3	10.1
4-year $301-700	45.7	40.0	29.2	24.1	15.9	7.1	3.4	23.7
University <$500	37.3	36.6	28.9	19.1	13.2	6.2	1.6	13.5
Moderate tuition:								
2-year >$500	23.0	22.9	19.6	15.4	10.1	6.1	3.8	13.5
4-year $301-700	45.7	40.0	29.2	24.1	15.9	7.1	3.4	23.7
University $501-700	39.5	36.7	25.2	19.1	13.8	6.8	2.3	14.6
High tuition:								
4-year >$700	31.1	28.9	29.1	23.1	16.0	7.6	4.1	17.4
University >$700	38.3	35.2	27.9	22.7	14.8	7.7	2.3	13.4

Source: Tabulations by ACE Policy Analysis Service from 1976 CIRP freshman data.

Table B12. Recipients of Basic Grants as Percentage of All First-Time, Full-Time Freshmen at Public Institutions, 1976-77

	Family Income							
	Less than $6,000	$6,000-9,000	$10,000-12,499	$12,500-14,999	$15,000-19,999	$20,000-24,999	More than $25,000	Total
Lowest tuition:								
2-year <$200	43.2%	32.1%	21.1%	12.8%	7.8%	5.7%	3.6%	17.8%
4-year <$300	46.8	29.2	13.3	6.8	4.1	3.0	2.1	8.0
Low tuition:								
2-year $201-500	51.1	39.9	21.2	14.1	8.3	6.8	3.2	20.9
4-year $301-700	75.9	64.5	40.3	23.3	13.3	6.3	4.4	33.3
University <$500	65.6	45.8	28.9	14.5	6.7	4.0	1.7	13.7
Moderate tuition:								
2-year >$500	61.6	50.7	34.0	22.3	11.5	7.2	4.6	24.6
4-year $301-700	75.9	64.5	40.3	23.3	13.3	6.3	4.4	33.3
University $501-700	67.1	51.4	31.4	18.0	10.6	5.2	3.0	18.0
High tuition:								
4-year >$700	68.8	54.1	36.5	22.9	12.4	6.8	3.6	24.0
University >$700	64.5	54.8	32.7	21.2	10.0	5.2	2.2	14.8

Source: Tabulations by ACE Policy Analysis Service from 1976 CIRP freshman data.

Table B13. Standardized Regression Coefficients from Equations on Aid-Administrator Characteristics

Independent variable	Dependent variables: Institutional enrollment		Institutional type*	
Experience: years in financial aid	.28	(148)	.17	(54)
Education: years beyond high school	.16	(47)	-.16	(46)
Age	.07	(10)	.07	(8)
Status: full-time = 0 part-time = 1	-.32	(210)	-.17	(56)
Annual salary	.47	(520)	-.24	(139)
Hierarcy: number of people to report through to the president	.35	(242)	-.05	(5)
Staff: number of full-time equivalent staff members	.75	(2491)	.14	(83)
Office responsibilities: number out of 10 common ones	-.01	(0)	-.05	(4)
Programs administered: number out of 11 common ones	.22	(58)	-.04	(3)

Note: All variables have been standardized to have mean of 0 and variance of 1. F-statistics in parentheses.
*0 = 2-year public; 1 = 4-year public.
Source: Data tape of the 1974 survey of financial aid administrators conducted by William J. Bushaw of the University of Iowa and NASFAA.

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